

Summary Chart

California Notice 2006-13: Pyrethroid Reevaluation Active Ingredient Specific Data Requirements.

Click on the hyperlink to open specific details regarding the conduct of each type of study, including citations to study protocols.

Active Ingredient Common Name	Environmental Fate Data						Sediment Data				Other Data	
	Water solubility	Octanol/water partition coefficient	Soil adsorption coefficient	Hydrolysis (pH @ 5, 7, & 9)	Photolysis, water	Aerobic/ anaerobic soil half-lives	Sediment analytical method	Sediment acute and chronic toxicity	Aerobic/anaerobic CA sediment half-lives	Monitoring in areas appropriate to use pattern	ID offsite movement method	Data demonstrating reduced movement offsite
Data Requirement Group I												
Bioallethrin	X	X	X	X	X	X						
D-Allethrin			X	X	X	X						
Imiprothrin			X		X	X						
Phenothrin	X	X	X	X		X						
Prallethrin	X	X	Pending Review	Pending Review	Pending Review	Pending Review						
Resmethrin			Pending Review									
Tetramethrin	X	X	X	X	X	X						
Data Requirement Group II												
Tau-Fluvalinate							X	X	X	X		
Tralomethrin							X	X	X	X ²		
Data Requirement Group III												
(S)-Cypermethrin ¹						X	Satisfied	X	X		X	X
Beta-Cyfluthrin							Satisfied	X	X		X	X
Bifenthrin							Satisfied	X	X		X	X
Cyfluthrin							Satisfied	X	X		X	X
Cypermethrin							Satisfied	X	X		X	X
Deltamethrin							Satisfied	X	X		X	X
Esfenvalerate			Satisfied				Satisfied	X	X		X	X
Fenpropathrin							Satisfied	X	X		X	X
Gamma-Cyhalothrin						X	Satisfied	X	X		X	X
Lambda-Cyhalothrin							Satisfied	X	X		X	X
Permethrin							Satisfied	X	X	X ³	X	X

¹ Also known as zeta-cypermethrin

² Deltamethrin must be included as an analyte in tralomethrin monitoring studies because it is a breakdown product of tralomethrin.

³ This applies to products containing uses where residues are likely to enter wastewater treatment plants. (e.g., pet shampoos, products impregnated into or sprayed onto clothing/bedding, products used to treat sewers.)

Pyrethroid Reevaluation Active Ingredient Specific Data Requirements.

Environmental Fate Data:

The required environmental fate studies are to be conducted utilizing the U.S. Environmental Protection Agency's (U.S. EPA's) Pesticide Assessment Guidelines: Subdivision N, Chemistry: Environmental fate, and OECD Guidelines or OPPTS Harmonized Test Guidelines:

1. Water solubility;
2. Octanol/water partition coefficient;
3. Soil adsorption coefficient. Report KD and KOC (L/Kg). Use three California soils with approximately 0.5%, 1.0%, and 2% organic carbon;
4. Hydrolysis half-life at pH 5, 7, and 9;
5. Photolysis half-life in water; and
6. Aerobic and anaerobic soil half-lives (metabolism). Use the same soils as used for soil adsorption coefficient study, if possible. Use three California soils with approximately 0.5%, 1.0%, and 2% organic carbon.

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Sediment Data:

1. Aerobic and anaerobic aquatic degradation half-lives using three California sediments with approximately 0.5%, 1.0%, and 2.0% organic carbon. Use U.S. EPA's Pesticide Assessment Guidelines: Subdivision N, Chemistry: Environmental Fate.
2. Sediment acute and chronic toxicity data for *Chironomus tentans* and *Hyallela azteca* in three California sediments with approximately 0.5%, 2.0%, and 5% organic carbon. Use U.S. EPA's Methods for Measuring the Toxicity and Bioaccumulation of Sediment-Associated Contaminants with Freshwater Invertebrates, Second Edition. EPA 600/R-99/064.
3. Sediment analytical method for sediment with a maximum Minimum Detection Limit (MDL) of 1 ng/gram (dry wt. basis) calculated based on U.S. EPA method (40CFR, Part 136, Appendix B; 7/1/90).
4. Monitoring in areas appropriate to use pattern. For the identified pyrethroids, which have not been previously monitored for, monitoring data to determine the scope of contamination under selected circumstances (e.g., effluent of water treatment plants). The outcome of this monitoring may require identifying the process by which pyrethroids are moving off the site. Submit protocols for review prior to initiation of studies.

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Other Data:

1. Data identifying the processes by which pyrethroids are moving off the site of application to aquatic sediments. Submit protocol(s) for review prior to initiation of studies.
2. Data demonstrating the reduction or elimination of pesticide residue movement from application sites to aquatic sediments. Submit protocol(s) for review prior to initiation of studies.